R5-2014-0104710000762

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

DATE:

SUBJECT: Review of CPT Plan and CMS PET Plan for Company Name, City, State

FROM: Charles Hall, Environmental Engineer
Air Enforcement and Compliance Assurance Section (MN/OH)

TO: File, Company Name, City, State

Company Name (ABBR), is the owner and operator of a hazardous waste incinerator/ hazardous waste-burning cement kiln / hazardous waste-burning liquid fuel boiler / hazardous waste-burning solid fuel boiler as defined in 40 CFR 63, Subpart EEE, National Emission Standard for Hazardous Air Pollutants from Hazardous Waste Combustors. ABBR also submitted several requests pertaining to monitoring procedures requirements. The following table summarizes the required information that ABBR has submitted.

Citation in HWC MACT	Description	Short Comment
§ 63.1207	Performance Testing	
(a)	General	OK/See comments.
(b)(1)	CPT	OK
(b)(2)	Confirmatory performance test	NA
(b)(3)	One-Time D/F Test for Sources Not Subject to a Numerical D/F Standard	NA
(c)(1)	Initial CPT.	
(c)(2)	Data in lieu of the initial CPT.	
(d)(1-2)	Frequency of testing.	
(d)(3)	Complete testing within 60 days after starting.	
(d)(4)	Applicable testing requirements under the interim standards	
(e)(1)(i)	ABBR must submit a notice of intention to conduct CPT and CMS PET due NLT 1 year before the schedules the start of the CPT and CMS PET.	
(e)(1)(i)(A)	Administrator shall approve or deny test plans within 9 months of receipt.	
(e)(1)(i)(B)	ABBR must submit intent to conduct CPT notification at least 60 days	

	before scheduled start.	
(e)(1)(ii)	ABBR must submit intent to conduct confirmatory performance test notification at least 60 days before scheduled start. Administrator will approve or deny within 30 days of receipt of test plan.	
(e)(2)	After EPA approves the CPT and CMS PET plans, ABBR must make them available to the public; and issue a public notice where the test plans are available for review.	
(e)(3)	Petitions for extension due to EPA non-response to test plan	
(f)	Content of CPT test plan.	
(f)(1)(i)	For each feed stream, including hazardous waste, other fuels, and industrial furnace feed stocks as fired:	Responses follow.
(f)(1)(i)(A)	heating value; concentrations of ash (HWCs only), SVMs, LVMs, Hg, and HCl/Cl_2;	
(f)(1)(i)(B)	Viscosity or description of the physical form.	
(f)(1)(ii)(A)	For organic HAPs, identify the concentration of each organic HAPs reasonably expected to be present;	
(f)(1)(ii)(B)	For organic HAPs, identify the quantification of organic HAPs;	
(f)(1)(ii)(C)	For organic HAPs, identify the description of blending procedure.	
(f)(1)(ii)(D)	Case-by-case hazardous waste feedstream analysis for organic HAPs	
(f)(1)(iii)(A)	Manufacturer's name and model number of the HWCs;	
(f)(1)(iii)(B)	Type of HWCs;	
(f)(1)(iii)(C)	Maximum design capacity in appropriate units;	
(f)(1)(iii)(D)	Description of the feed system for each feedstream;	
(f)(1)(iii)(E)	Capacity of each feed system;	
(f)(1)(iii)(F)	Description of AWFCO system;	
(f)(1)(iii)(G)	Description of design, operation, and maintenance practices for the APCDs;	
(f)(1)(iii)(H)	Description of design, operation, and maintenance practices of CEMs and CMSs	
(f)(1)(iv)	Detailed description of the sampling and monitoring procedures.	
(f)(1)(v)	Detailed test schedule for each hazardous waste including dates, duration, quantity of waste to be burned and other relevant factors.	
(f)(1)(vi)	Detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feed rate for each feed system, and, as appropriate, the feed rates of other fuels and feed	

	stocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor to meet the emission standards.	
(f)(1)(vii)	Description of, and planned operating conditions for, any emission control equipment that will be used.	
(f)(1)(viii)	Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction.	
(f)(1)(ix)	Determination of the hazardous waste residence time, tr.	
(f)(1)(x)	Request to extrapolate metal feed rate limits from comprehensive performance test levels under § 63.1209(l)(1)(i) or § 63.1209(n)(2)(ii)(A).	
(f)(1)(xi)	If not monitored, document expected concentrations of regulated pollutants in natural gas, process air feed streams, and vapor recovery feed streams.	
(f)(1)(xii)	Documentation justifying the duration of system conditioning required to ensure the combustor has achieved steady-state operations under performance test operating conditions.	
(f)(1)(xiii)	For cement kilns with in-line raw mills, if ABBR elects to use the emissions averaging provision of 63.1204(d), notify the Administrator and provide the information required under 63.1204(d)(ii)(B).	
(f)(1)(xiv)	For pre-heater or pre-heater/pre-calciner cement kilns with dual stacks, if ABBR elects to use the emissions averaging provision of § 63.1204(e), notify the Administrator and provide the information required under § 63.1204(e)(2)(iii)(A).	
(f)(1)(xv)	Reserved.	
(f)(1)(xvi)	If ABBR is not required to conduct performance testing to document compliance with the Hg, SVM, LVM, or HCl/Cl_2, emission standards under § 63.1207(m), ABBR must include with the CPT plan documentation of compliance with the provisions of that section.	
(f)(1)(xvii)	If ABBR proposes to use a surrogate for measuring or monitoring gas flow rate, ABBR must document in the CPT plan that the surrogate adequately correlates with gas flow rate, as required by paragraph (m)(7) of this section, and § 63.1209(j)(2), (k)(3), (m)(2)(i), (n)(5)(i), and (o)(2)(i).	
(f)(1)(xviii)	ABBR must submit an application to request alternative monitoring under § 63.1209(g)(1) NLT the date of the CPT test plan as § 63.1209(g)(1)(iii)(A) requires.	

(f)(1)(xix)	Document location of temperature measurement as § 63.1209(j)(1)(i) and § 63.1209(k)(2)(i) require.	
(f)(1)(xx)	If ABBR's source is equipped with activated carbon injection, the CPT must include the information in (f)(1)(xx)(A, B).	
(f)(1)(xx)(A)	manufacturer specifications for minimum carrier fluid flow rate or pressure drop	
(f)(1)(xx)(B)	Key parameters that affect carbon adsorption and their OPLs	
(f(1)(xxi)	If ABBR's source is equipped with a carbon bed system, the CPT must include the information in (f)(1)(xxi)(A, B).	
(f)(1)(xxii)	If ABBR feeds a D/F inhibitor into the combustion system, the CPT test plan must document (1) key parameters that affect the effectiveness of the inhibitor and (2) the operating limits the ABBR establishes for those parameters based on the inhibitor fed during the performance test, if ABBR elects not to specify and use the brand and type of inhibitor used during the CPT, as § 63.1209(k)(9)(ii) requires.	
(f)(1)(xxiii)	If the source is equipped with a WS and ABBR elects to monitor solids content of the scrubber liquid manually but believe that hourly monitoring of solids content is not warranted, ABBR must support an alternative monitoring frequency in the CPT plan, as § 63.1209(m)(1)(i)(B)(1)(i) require.	
(f)(1)(xxiv)	If the source is equipped with a PM control device other than a WS, FF, or ESP, the CPT plan must include the information in (f)(1)(xxiv)(A, B): (A) Documentation to support the OPLs you establish for the control device § 63.1209(m)(1)(iv)(A)(4) requires; and (B) Support for the manufacturer specifications if you recommend such specifications in lieu of basing OPLs on CPT operating levels as § 63.1209(m)(1)(iv)(D) requires.	
(f)(1)(xxv)	If ABBR's HWCs are equipped with a dry scrubber to control HCl/Cl_2, ABBR must document in the CPT test plan key parameters that affect adsorption, and the limits that ABBR establishes for those parameters based on the sorbent used during the performance test, if ABBR elects not to specify and use the brand and type of sorbent used during the comprehensive performance test, as required by § 63.1209(o)(4)(iii)(A).	
(f)(1)(xxvi)	For purposes of calculating SVM, LVM, Hg, and HCl/Cl_2, and ash feed rate limits, ABBR must describe how ABBR will handle performance test feed stream analytical results that determines these constituents are not present at detectable levels.	

(f)(1)(xxvii)	Such other information as the Administrator reasonably finds necessary to determine whether to approve the performance test plan.	
(g)(1)	Operating conditions during CPT:	
(g)(1)(i)(A)	ABBR must feed normal (or higher) levels of chlorine during the D/F performance test;	
(g)(1)(i)(B)	ABBR must conduct the following tests when feeding normal (or higher) levels of ash: The SVM and LVM performance tests; and the D/F and Hg performance tests if activated carbon injection or a carbon bed is used; and	
(g)(1)(i)(C)	ABBR must conduct the following tests when the PM control device undergoes its normal (or more frequent) cleaning cycle: The PM, SVM, and LVM performance tests; and the D/F and Hg performance tests if activated carbon injection or a carbon bed is used.	
(g)(1)(ii)	Modes of Operation	
(g)(1)(iii)	Steady state conditions.	
(g)(2)	Confirmatory Performance Test	
(h)	Operating conditions during subsequent testing	
(i)	Time extension for subsequent performance tests	
(j)	Notification of compliance	
(k)	Failure to submit a timely notification of compliance	
(l)	Failure of performance test	
(m)	Summary of Waiver Provision	

Longer Comments

Citation in HWC MACT	Description
§ 63.1207	
(a)	
(b)(1)	
(b)(2)	
(b)(3)	
(c)(1)	
(c)(2)	
(d)(1-2)	
(d)(3)	
(d)(4)	
(e)(1)(i)	
(e)(1)(i)(A)	
(e)(1)(i)(B)	
(e)(1)(ii)	
(e)(2)	
(e)(3)	
(f)	
(f)(1)(i)	
(f)(1)(i)(A)	
(f)(1)(i)(B)	
(f)(1)(ii)(A)	
(f)(1)(ii)(B)	
(f)(1)(ii)(C)	
(f)(1)(ii)(D)	
(f)(1)(iii)(A)	
(f)(1)(iii)(B)	
(f)(1)(iii)(C)	

(f)(1)(iii)(D)	
(f)(1)(iii)(E)	
(f)(1)(iii)(F)	
(f)(1)(iii)(G)	
(f)(1)(iii)(H)	
(f)(1)(iv)	
(f)(1)(v)	
(f)(1)(vi)	
(f)(1)(vii)	
(f)(1)(viii)	
(f)(1)(ix)	
(f)(1)(x)	
(f)(1)(xi)	
(f)(1)(xii)	
(f)(1)(xiii)	
(f)(1)(xiv)	
(f)(1)(xv)	
(f)(1)(xvi)	
(f)(1)(xvii)	
(f)(1)(xviii)	
(f)(1)(xix)	
(f)(1)(xx)	
(f)(1)(xx)(A)	
(f)(1)(xx)(B)	
(f(1)(xxi)	
(f)(1)(xxii)	
(f)(1)(xxiii)	
(f)(1)(xxiv)	
(f)(1)(xxv)	

(f)(1)(xxvi)	
(f)(1)(xxvii)	
(g)(1)	
(g)(1)(i)(A)	
(g)(1)(i)(B)	
(g)(1)(i)(C)	
(g)(1)(ii)	
(g)(1)(iii)	
(g)(2)	
(h)	
(i)	
(j)	
(k)	
(l)	
(m)	

Reference Method / Minimum Sample Volume / Minimum Sampling Duration

Combustion Rule	63, EEE	ABBR's CPT Test Plan
Sample Runs	3[1]	3
Sample Points	silent	RM 1
Stack Velocity	silent	RM 2
Gas Analysis	silent	RM 3
Moisture	silent	RM 4
PM	5, 5I / DNA / DNA	DNI / DNI / DNI
CO	CMS; no test	CO CEM
dioxin/furan	RM 0023A / 2.5 dscm / 3 hrs	RM 0023A / ## dscm / ## hrs
HCl/Cl_2	RM 26A[2] / silent / silent	RM 1-5 and 26A / ## dscm / ## hrs
Hg	RM 29 / silent / silent	RM 1-4, 29 / ## dscm / ## hrs
Pb, Cd	RM 29 / silent / silent	RM ## / ## dscm / ## hrs
As, Be, Cr	RM 29 / silent / silent	RM ## / ## dscm / ## hrs
THC	Other test methods in SW-846?	RM ## / ## dscm / ## hrs
VOST (DRE)	Other test methods in SW-846?	RM ## / ## dscm / ## hrs
Semi-Volatiles	Other test methods in SW-846?	RM ## / ## dscm / ## hrs

DNA = does not apply.
DNI = ABBR did not provide this information.
RM = Reference Method in 40 CFR 60, Appendix A

[1] 63.7(e)(3) specifies three runs unless subpart states otherwise.

[2] The owner or operator may use Methods 320 and 321 also.

Monitoring Requirements

63.1209	HAP	OPL	OPL Value	Supporting Test Data	Averaging Period
(j)(1)	DRE	Minimum PCC Temperature			1-hour
(j)(1)	DRE	Minimum SCC Temperature			1-hour
(j)(2)	DRE	Maximum Flue Gas Flow Rate			1-hour
(j)(3)	DRE	Maximum PCC Pumpable Waste Feed Rate			1-hour
(j)(3)	DRE	Maximum PCC Total Waste Feed Rate			1-hour
(j)(3)	DRE	Maximum SCC Pumpable Waste Feed Rate			1-hour
(j)(3)	DRE	Maximum SCC Total Waste Feed Rate			1-hour
(j)(4)	DRE	Waste Firing System OPL for System #1			1-hour
(j)(4)	DRE	Waste Firing System OPL for System #2			1-hour
(j)(4)	DRE	Waste Firing System OPL for System #3			1-hour
(k)(1)	DRE	Maximum Dry PM APCD Inlet Temperature			1-hour
(k)(2)	D/F	Minimum PCC Temperature			1-hour
(k)(2)	D/F	Minimum SCC Temperature			1-hour
(k)(3)	D/F	Maximum Flue Gas Flow Rate			1-hour
(k)(4)	D/F	Maximum PCC Pumpable Waste Feed Rate			1-hour
(k)(4)	D/F	Maximum PCC Total Waste Feed Rate			1-hour
(k)(4)	D/F	Maximum SCC Pumpable Waste Feed Rate			1-hour
(k)(4)	D/F	Maximum SCC Total Waste Feed Rate			1-hour
(k)(5)	D/F	Activated Carbon Injection PM OPLs			1-hour
(k)(6)	D/F	Activated Carbon Injection D/F OPLs			1-hour
(k)(7)	D/F	Activated Carbon Bed OPLs			1-hour
(k)(8)	D/F	Catalytic Oxidizer			1-hour
(k)(9)	D/F	Inhibitor Feed Rate			1-hour
(l)(1)(i)	Hg	Maximum Hg Feed Rate for incinerators, SFBs			12-hour
(l)(1)(iii)	Hg	Maximum Hg Feed Rate for LFBs, CKs, LWAKs			12-hour
(l)(1)(v)	Hg	Hg Feed Rate Extrapolation			12-hour
(l)(2)	Hg	Wet Scrubber: Establish (o)(3)(i-iii, v) OPLs			1-hour
(l)(3)	Hg	Activated Carbon Injection D/F, PM OPLs			1-hour

(l)(4)	Hg	Activated Carbon Bed OPLs			1-hour
(m)(1)(i)	PM	Wet Scrubber OPLs			1-hour
(m)(1)(ii)	PM	Reserved			1-hour
(m)(1)(iii)	PM	Reserved			1-hour
(m)(1)(iv)	PM	Other PM Control Device Representative and Reliable OPL			1-hour
(m)(2)	PM	Maximum Flue Gas Flow Rate			1-hour
(m)(3)	PM	Maximum Ash Feed Rate			12-hour
(n)(1)	SVM, LVM	Maximum Fabric Filter Inlet Temperature			1-hour
(n)(2)(i)	SVM	Maximum Feed Rate of SVM in all feed streams HWIs			12-hour
(n)(2)(ii)	LVM	Maximum Feed Rate of LVM in all feed streams for HWIs			12-hour
(n)(2)(iii)	SVM, LVM	Special Feed Rate provisions for CKs			1-hour
(n)(2)(iv)	SVM, LVM	Special Feed Rate provisions for LWAKs			1-hour
(n)(2)(v)	SVM, LVM	Special Feed Rate provisions for LFBs			1-hour
(n)(2)(vi)[3]	LVM	Maximum Pumpable LVM Feed Rate			1-hour
(n)(2)(vii)	SVM, LVM	SVM, LVM Feed Rate Extrapolation.			1-hour
(n)(3)	SVM, LVM	PM Control Device OPLs			1-hour
(n)(4)	SVM, LVM	Maximum Feed Rate for HCl/Cl_2			12-hour
(n)(5)	SVM, LVM	Maximum Flue Gas Flow Rate			1-hour
(o)(1)(i)	HCl/Cl_2	Maximum Feed Rate for HCl/Cl_2 for HWIs, LWAKs, CKs, SFBs, and HCl furnaces			12-hour
(o)(1)(ii)	HCl/Cl_2	Maximum Feed Rate for HCl/Cl_2 for LFBs			12-hour
(o)(2)	HCl/Cl_2	Maximum Flue Gas Flow Rate			1-hour
(o)(3)	HCl/Cl_2	Wet Scrubber OPLs			1-hour
(o)(4)(i)	HCl/Cl_2	Spray Dry Adsorber: Minimum Sorbent Feed Rate			1-hour
(o)(4)(ii)	HCl/Cl_2	Spray Dry Adsorber: Minimum Carrier Fluid Flow Rate Or Nozzle Pressure Drop			1-hour

[3] § 63.1209(n)(2)(vi) LVM limits for pumpable wastes. You must establish separate feed rate limits for LVMs in pumpable feed streams using the procedures prescribed above for total LVMs. Dual feed rate limits for both pumpable and total feed streams are not required, however, if you base the total feed rate limit solely on the feed rate of pumpable feed streams.

(o)(4)(iii)(A)	HCl/Cl_2	Spray Dry Adsorber: Specify and use the Brand and Type of Carbon used during the CPT			1-hour
(p)	All	Maximum Combustion Chamber Pressure			1-hour
(q)	All	Different Modes of Operation			1-hour
(r)	All	Averaging Times			1-hour